

## Nest and nestling data for the unnamed ‘Ampay’ Tapaculo *Scytalopus* sp. from Apurímac, Peru

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Presentamos la descripción del nido de una especie aún no descrita (*Scytalopus* sp.), únicamente registrada en las montañas de Apurímac, Perú. En diciembre del 2013, en las tierras altas de Runtacocha-Morococha, al sureste de la ciudad de Abancay, encontramos un nido en forma de copa, ubicado en una grieta cubierta de musgo en una pared rocosa con fuerte pendiente. Este es el segundo reporte de un nido de *Scytalopus* en una grieta rocosa, el tercero conocido en forma de copa y el cuarto reporte del uso de pasto en la construcción del nido. Nuestros descubrimientos corroboran la diversidad de sitios de anidación y materiales para la construcción de nidos en el género.

Tapaculos in the genus *Scytalopus* are known for their cryptic coloration, behaviour and complex biogeography, and range from Costa Rica to Tierra del Fuego<sup>2,10,17,18,29,31</sup>. Taxonomy is complicated, with c.40 species currently recognised<sup>24</sup> and many geographically isolated taxa awaiting formal description based on molecular and vocal analyses<sup>17,18,29</sup>. Many species have been only recently described or split<sup>6,7,15,16,19,20,22</sup>.

The nesting biology of *Scytalopus* is also poorly known, as nests have been described for only 25 of the currently recognised species<sup>1,8,11–14,21,25–28,30</sup>. Information on reproductive biology is even scarcer, with nestling descriptions available for just six species<sup>1,12,18,27</sup>. In most species, nests are domed or globular structures and constructed within a crevice, burrow or cavity<sup>18</sup>.

The undescribed ‘Ampay’ Tapaculo was discovered in 1987 by J. Fjeldså & N. Krabbe<sup>2,10</sup>. Birders visiting Apurímac, Peru, refer to it as ‘Ampay’ or ‘Apurímac’ Tapaculo and its vocalisations are known (see Fjeldså & Krabbe<sup>10</sup>, and recordings online at [www.xeno-canto.org/species/Scytalopus-sp.nov.Ampay](http://www.xeno-canto.org/species/Scytalopus-sp.nov.Ampay)). It has not been formally described, but a description is in preparation (J. Fjeldså & T. S. Schulenberg pers. comm.). Here we describe the nest and nestlings of this unnamed *Scytalopus*, and compare our data to other *Scytalopus* nests and nestlings.

### Observations

On 21 December 2013 at 14h00, we found a nest of ‘Ampay’ Tapaculo at c.4,500 m in the Runtacocha-Morococha highlands, 30 km south-east of Abancay, Apurímac, Peru (13°41'22.12"S 72°45'50.03"W). This site is a known locality for the species, which is often sought by birders in the remnant *Polylepis* forests. Although the species is commonest in *Polylepis* at this site, we also found it in overgrown boulder fields in the surrounding puna and altiplano. Climate is cool, with temperatures

occasionally dropping below freezing, and a rainy season in November–April and dry season in May–August<sup>3</sup>. During our three-day visit to the area, mornings were fine, with precipitation in the form of rain, hail and snow in afternoons and evenings.

While descending from a pass above Lago Morococha, we heard a *Scytalopus* singing at close range in a boulder field overgrown by shrubs (Fig. 1A). We used playback<sup>4</sup> to lure the bird into view to obtain photographic and video documentation. Two birds responded, and after photographing one, we noticed the other was carrying food, and watched as it vanished into a crevice between boulders. Immediately thereafter we heard the begging calls of nestlings and the adult emerge without food. For c.10 minutes we observed both adults bringing invertebrates to the crevice every 2–3 minutes, and tried to pinpoint the nest location, which we eventually found deep inside the crevice (Fig. 1B).

The nest was deep in a rocky crevice (Fig. 1B) within a boulder field (Fig. 1A) overgrown by shrubs and forbs. Smaller rocks occupied much of the space at the entrance to the crevice, which was surrounded by live and dead *Caiophora* sp. (Loasaceae). Green moss was present in patches on the two boulders forming the crevice. The nest was a simple cup, constructed of dry grasses and plant material (Fig. 2), and lined with softer plant material, dark brown moss and rootlets. The bulk of the nest was 7.5 cm wide and the cup 5.5 cm wide. It was sited in the furthest reach of the crevice (75 cm deep), at 1 m height, and was wedged on a rocky outcrop below the roof of the crevice, leaving only 7 cm from the bottom of the cup to the crevice roof. The outcrop on which it was placed left an opening 8 cm wide by 7 cm high to access the nest.

The nest held two nestlings (Fig. 3). As we discovered the nest incidentally we lacked measuring tools, thus our measurements are based on extrapolations using objects of known lengths in the photograph. Furthermore, as we did not mark

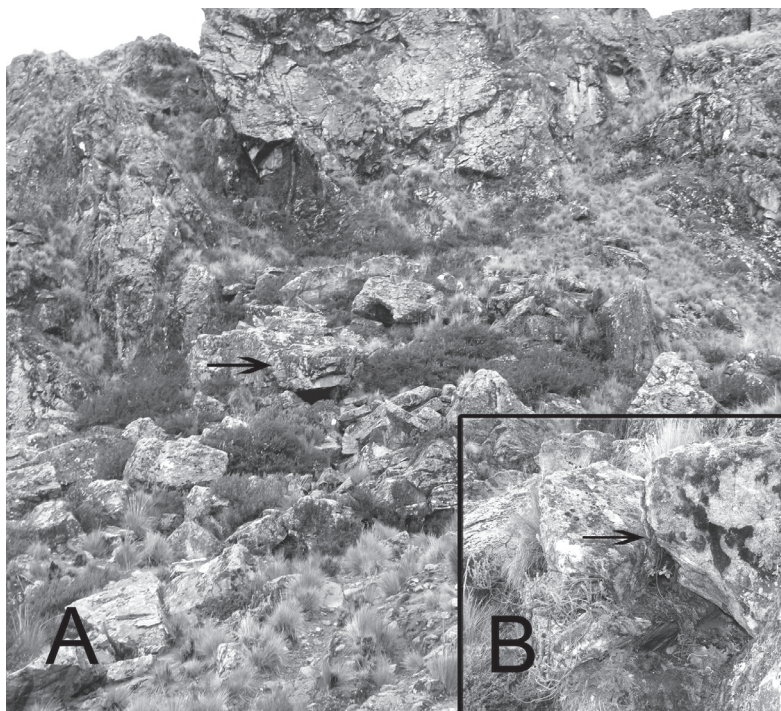


Figure 1. Nesting habitat (A) and specific location (B) of a nest of 'Ampay' Tapaculo *Scytalopus* sp., Runtacocha-Morococha highlands, Apurímac, Peru, December 2013; arrows denote the crevice where the nest was found (J. W. Baldwin)



Figure 2. Nest of 'Ampay' Tapaculo *Scytalopus* sp., Runtacocha-Morococha highlands, Apurímac, Peru, December 2013 (J. W. Baldwin)

them individually, measurements are averaged from both individuals, which were measured with a precision of 1 mm using Image J<sup>23</sup>. The tails were 4 mm long and bills 7 mm long by 4 mm wide. Their

tarsi were 20 mm, and wings 23 mm long. Eyes were open, narrowly, and deep blackish brown. Skin was peachy pink, becoming more yellowish orange on the neck, probably due to internal



Figure 3. One of the two nestlings of 'Ampay' Tapaculo *Scytalopus* sp., Runtacocha-Morococha highlands, Apurímac, Peru, December 2013 (J. W. Baldwin)

fat, becoming pinker on the thighs, probably due to internal muscles. Eyelids greyish. Legs pale, pinkish yellow, although the tarsi were tinged greyish. Claws coloured like bleached bone. Bills narrow, bulging at the gape, and a pale, waxy pink colour, becoming darker grey at the tip, especially on the maxilla, with a central ridge on the culmen, and indented nares. Gape a pale, off-white pallid pink. Cloacae only slightly paler than the rest of the skin. Most of the mousy-grey body down had been shed, but was predominant on the head, with the densest tufts on the crown and occiput. Sparser down persisted on the secondary coverts, rectrices, pelvic region and femoral tract. Pins were still unbroken and without sheaths on their heads and around their cloacae. The primaries and secondaries exhibited a small degree of pin break (<5% of the feather out of the pin) and appeared to have broken that day. The remaining feathers were sheathed, though with obvious pale tips. The back, breast and rump feathers had emerged further from the pins (back: 50%, breast: 15%, rump: 10%), and the ventral and spinal tracts were well developed, exhibiting large paint-brush-like feather structure, coloured blackish with the outer third of each feather tipped pale brown. Bare skin was still visible on the neck-sides, lower back, belly, underwing, rear flanks and around the cloaca.

## Discussion

Our observations are consistent with many aspects of *Scytalopus* breeding biology. We corroborate previous reports of bi-parental care<sup>8,12,14</sup>, as we observed two adults, presumably male and female, food-carrying. Nestling begging calls were within the known variation of nestling vocalisations in *Scytalopus*, sounding more insect-like, comparable to *S. simonsi*<sup>14</sup>, than the harsh, lower, more grating calls of *S. parvirostris* (JRD & G. A. Londoño unpubl.). Calls appeared to anticipate the arrival of the adult by 1–2 seconds, behaviour also documented in *S. micropterus*<sup>12</sup>. Based on the literature<sup>12,14,27</sup> and unpublished data for *S. parvirostris* (JRD & G. A. Londoño), we estimate that the nestlings we found were 5–8 days old.

Most *Scytalopus* nests are domed or globular<sup>18</sup> but cup nests are known for *S. supercilialis*<sup>24</sup> and *S. micropterus*<sup>12</sup>, making this nest the third known open cup-nest in *Scytalopus*. For the entire genus, nests are typically sited inside crevices, burrows or cavities<sup>18</sup>, but some species exploit structures created by other animals<sup>12</sup> such as rodents<sup>14</sup>, or other birds<sup>11</sup>. The current nest is the second after that of *S. affinis* (J. Fjeldsø pers. comm.) placed deep inside a rocky crevice, but other species probably also do so, given the diversity of *Scytalopus* found above the treeline in rocky habitats<sup>15,24</sup>. Finally, only *S. supercilialis*<sup>28</sup>, *S. affinis* (J. Fjeldsø pers.



comm.) and *S. simonsi*<sup>14</sup> were previously known to incorporate grass in their nests.

We frequently encountered 'Ampay' Tapaculos (once a juvenile with two adults) in other habitats, e.g. among gnarled tree roots in mossy *Polylepis* / *Gynoxys* and *Podocarpus* forest, and even in drier *Escallonia* scrub with less grass and boulders than nesting habitat typical of other *Scytalopus*. If the species does nest in these habitats, then our observations suggest that this taxon opportunistically uses whatever structures are readily available, as observed for other *Scytalopus*<sup>12,11,14</sup>. We suspect that 'Ampay' Tapaculo may also nest under tree roots and in burrows within banks, as well as use nesting materials other than grass. Our findings add to the growing body of literature documenting the diversity and opportunistic use of nest materials and nesting habitats in *Scytalopus*<sup>14</sup>, in contrast to the nesting stereotypy observed in other tracheophone passerines<sup>5,32</sup>.

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